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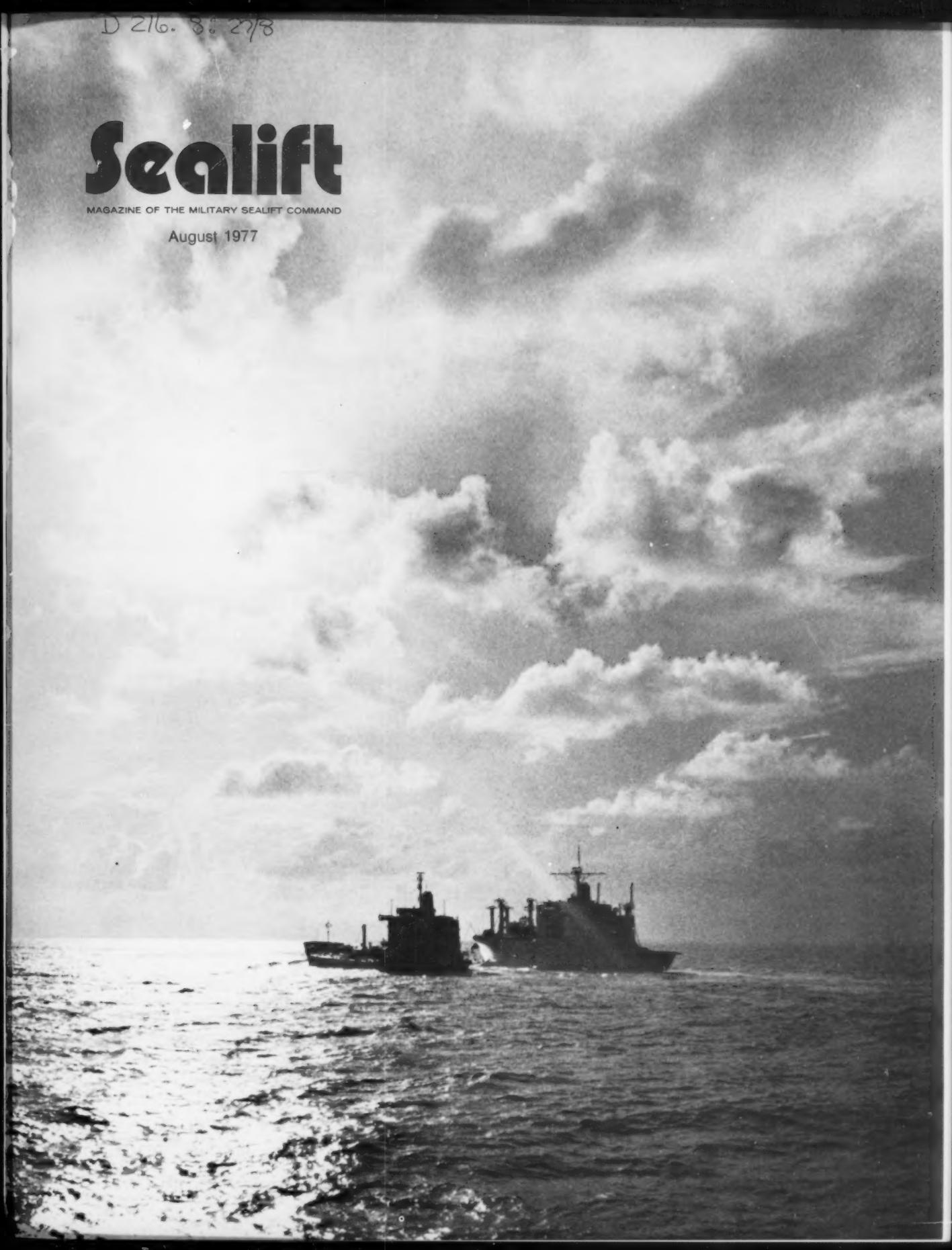
Sealift

MAGAZINE OF THE MILITARY SEALIFT COMMAND

August 1977



It's People Who Count

A major problem which confronts the head of any large or scattered organization is keeping in touch with the men and women who are a part of that organization.

In spite of our best efforts it is unfortunately all too easy to overlook a most important truism—that leadership and management can never be successful without the full support of every member of the team.

It is impossible for me to have a personal relationship with every member of Military Sealift Command. We are part of a worldwide organization, dependent to a great extent on messages, letters and telephones as our primary means of communication. Time and distance often make effective communication difficult.

However, Sealift magazine is one means I have of communicating my ideas throughout MSC, of recognizing the achievements and contributions of fellow members of the command, and of providing information which may answer some of the questions you may have. I intend to use this monthly Sealift column as a means of communicating with MSC people.

In addition, in the near future, I hope to be able to initiate other means of enhancing the flow of information among all members of the MSC team—with particular emphasis being given the development of channels which will allow the man on the job to express his views to top management in the MSC area commands, and to me and my headquarters staff.

It is easy for me to say that I know I can rely on the skills and dedication of MSC people because your past performance indicates that this is a valid conclusion. But, that statement, accurate though it is, might also imply that I consider you to be merely cogs in the organizational machine, and thus to be taken for granted.

It is of tremendous importance, I think, that every military commander or civilian supervisor within MSC understand that employees are people, not highly sophisticated machines. We always must keep in mind the fact that each person is unique with all of the same feelings and emotions we recognize in those with whom we have a personal relationship.

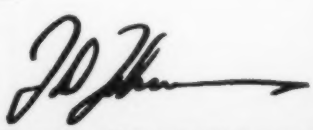
All of us work for the Navy, though our responsibilities may differ. But, we are more than job-holders who are required only to perform certain functions each day. We want to do well and we expect others to respect our opinions and to be concerned about our problems and our needs. If we want others to have a high regard for us, to cooperate with us in performing our own tasks, we have to display that same attitude in dealing with our co-workers.

In this regard, I look upon our equipment and ships as the tools we have at our disposal. They help accomplish our missions only because man directs and guides their capabilities. And yet, how many times have all of us read headlines something like these? SHIP RESCUES 10 IN STORMY SEAS — USNS COURAGEOUS SETS NEW CARGO LIFT RECORD — TANKER DELIVERS WATER TO DROUGHT STRICKEN ISLAND.

Ships do not rescue human beings. They do not set records. Neither do computers make decisions or sophisticated analyses. People use these mechanical wonders, created by man, to perform the functions for which people are responsible. Creativity, skill, judgment, dedication, perseverance and similar qualities are possessed only by man. We cannot build them into machines.

Thus, recognizing that it is people who are the key to the accomplishment of command missions, it is necessary that we do all that we can to insure that MSC people are informed, that everyone is given an opportunity to express his ideas, his feelings and his recommendations to his supervisor, ashore and at sea. At the same time, we must assure that those who do an outstanding job are given the recognition their performance deserves.

It is not enough to write a once-a-year fitness report, or to pass on congratulatory letters from those outside the command. We need to recognize every good job when it takes place—and as frequently as that recognition is warranted. These are objectives I have set for myself and I welcome your wholehearted support in the attainment of those goals.



Commander, Military Sealift Command

COVER: While heading for Guam, the contractor operated USNS Sealift Antarctic made an opportune replenishment with the ammunition ship USS Shasta. Story on page 4.

Photo by SN John H. Scott

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Sealift

MAGAZINE OF THE MILITARY SEALIFT COMMAND

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Charger Log IV

Civilian operated commercial tankers provide fuel for Navy fleets under Charger Log IV program.

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Hail and Farewell

Photos tell the story of the recent change of command at Military Sealift Command.

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1,000 UNREPS For Taluga

MSC's first oiler, USNS Taluga, handles its 1,000th underway replenishment.

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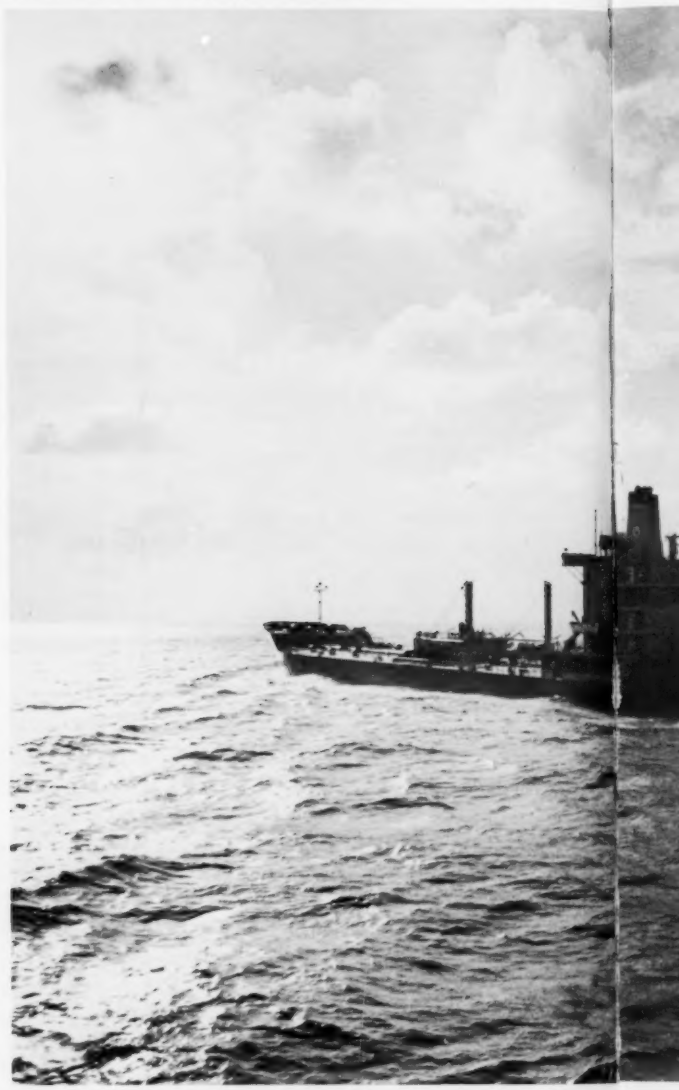
USNS Sealift Antarctic (left) and USS Shasta



By the end of 1977, Sealift Antarctic will be one of four Sealift class tankers to have an astern refueling rig.

Charger Log IV— Training Tankermen

By Cmdr. J. R. Knight
Commanding Officer, USS Shasta

Somewhere at sea a Navy task force has been diverted to go to the aid of a friendly nation. The task force is steaming with its electronic equipment shut down to avoid detection.

To reach its destination requires two days of steaming and an unplanned fuel expenditure. And there is a hitch, two in fact. The oiler and other support ships of the task force cannot supply all the fuel the task force needs and no other fleet oilers are available.

A tactical dilemma confronts the operational planners. The task force must be diverted but how will it be supported? The answer? A civilian tanker under contract to the U.S. Navy and under the operational control of Military Sealift Command which is loading in a nearby port. The ship is directed to get under way when topped off and to rendezvous with the task force.

MSC chartered and contractor operated tankers are not equipped with fueling at sea rigs and are not manned for such operations, nor are the crew members trained in underway replenishment operations.

However, the task force commander need not worry about the underway refueling capability of tankers in the MSC controlled fleet. Thanks to an ongoing program, code name Charter Log IV, MSC controlled tankers as well as Royal Navy auxiliary units have been practicing underway refueling of U.S. Navy ships for some time.

The Charger Log IV program was originated to train civilian crews of MSC controlled tankers in underway refueling of carriers, cruisers, auxiliaries or any other ship capable of passing a fuel rig to the tanker. All MSC controlled tankers are supplied with the NATO quick disconnect, breakable spool coupling while some are equipped

Photo by SN John H. Scott

with male Robb fittings.

Under the current concept of Charger Log IV operations, the MSC commander nominates tankers from his command controlled fleet for fleet refueling operations.

The MSC tanker gives its position, speed and course to the fleet ship. The oiler must then rendezvous with the tanker which continues its normal course, preferably without radio communications. Radio silence is, of course, an attempt to simulate wartime conditions.

In a recent test, the ammunition ship USS Shasta, assigned to Task Force 73 in the Western Pacific, was tasked to rendezvous with the USNS Sealift Antarctic, an MSC tanker operated by Marine Transport Lines under an MSC contract.

Sealift Antarctic was enroute from Singapore to Subic Bay with a load of marine diesel fuel. All arrangements and coordination were accomplished through five unclassified messages between MSC and Task Force 73 commanders, USS Shasta and the USNS Sealift Antarctic master and a one-hour briefing by MSC Office, Philippines commanding officer, Cmdr. William G. McHenry.

Once the details were worked out, the rendezvous, hook-up and delivery of approximately 40,000 gallons of marine diesel fuel were completed without further radio traffic.

Flashing light communications were used to complete the rendezvous and to arrange the replenishment course and speed. No other means of communication were required or attempted until the two ships were alongside and a bridge-to-bridge sound powered telephone link was in operation.

Deck seamen on the Sealift Antarctic smoothly handled Shasta's forward port seven-inch fuel hose. From the firing of the shot line, it took the Sealift Antarctic's small crew only 19 minutes to receive and hook-up Shasta's tensioned spanwire fuel rig. This time compares very favorably with that of military manned oilers which provide underway replenishment to Shasta on a regular basis.

The planning, rendezvous, approach, hookup, alongside handling and disconnect operation with Sealift Antarctic was a textbook example of underway refueling using a tensioned spanwire rig. The entire exercise from initial planning to completion resoundingly proved the practicality and ease with which MSC controlled tankers can support the Navy fleet at sea.

That success is also a tribute to the continuing training provided crews of MSC controlled ships, and to the attitude and skills of the crews who exert an extra effort to master UNREP tasks.

The skills they acquire will be invaluable in event of an emergency situation where fleet underway replenishment requirements would surge dramatically. ⚓

Privately Operated Tankers Support Navy Fleets

Civilian commercial tankers have played an increasingly greater role since late 1971 in delivery of petroleum products to Navy fleet ships.

Tankers controlled by Military Sealift Command and manned by civilian seamen have been the bulwark of the Navy's Charger Log programs, specifically Charger Log IV.

Charger Log IV has enabled the Navy to make better use of privately owned ships of the U.S. Merchant Marine and to provide training for tankermen.

There were 94 opportune replenishments or training hookups under Charger Log IV between November 1971 and June 1977. In an opportune replenishment, the fleet commander usually adjusts the schedules of his ships to conform to the routes of the merchant type tankers.

Companies operating the tankers that have been involved in Charger Log IV include: Hudson Waterways Corp.; Marine Transport Lines, Inc.; Victory Carriers, Inc.; Ogden Marine, Inc.; Mathiasen's Tanker Industries (has merged with Trinidad Corp.); Rye Marine Corp.; Keystone Shipping Co.; Exxon Co.; International Ocean Transport Corp.; Maritime Overseas Corp.; Cove Shipping, Inc., and American Trading Transportation Co.

The MSC controlled tankers provide petroleum products to Navy ships when fleet oilers are not readily available.

Charger Log I initially involved the 35,000-deadweight-ton MSC controlled and commerically operated tanker Erna Elizabeth owned by Hudson Waterways and chartered by MSC. This Navy-Maritime Administration sponsored test evaluated the capabilities of privately owned tankers to provide underway replenishments to Navy ships in an emergency.

In a sense Charger Log IV is both a continuation of the Erna Elizabeth test and the extension of a practice used periodically since the 1950s — the opportune replenishment of Navy ships by MSC controlled tankers. There had been more than 100 such refuelings before Charger Log IV was formally established and another 100 since then.

Most of Military Sealift Command's tanker business consists of point-to-point lift of Defense Department petroleum cargoes. Under Charger Log IV, MSC publishes a weekly schedule of the routes of these tankers and a listing of the fuels they carry.

To keep MSC tankers on schedule, Navy fleet ships join up with the vessels along the track the tankers are sailing.

The typical tanker chartered and controlled by MSC has two stations on each side capable of receiving a refueling hose from a combatant ship that needs replenishment. Merchant ships in commercial service do not carry refueling transfer rigs.

Opportune replenishments under the Charger Log IV program began in November 1971 with two at-sea exercises. The USNS Maumee, operated for MSC by Hudson Waterways, passed nearly 5,200 barrels of petroleum products to the oiler USS Marias off Jacksonville.

The Marias master said it was "a good effort for first underway replenishment at sea operations for a tanker" and he offered no recommendations for improvement.

The same day, farther up the coast off Rhode Island, the USNS Pioneer Valley, operated by Marine Transport Lines, passed fuel to the oiler USS Severn. In December the USNS Yukon joined with the combat support ship USS Seattle in the Western Mediterranean for training.

USS Enterprise (left) and SS American Trader

Enterprise officers reported "excellent deck seamanship" aboard American Trader during a replenishment in the Indian Ocean.

The SS Council Grove has met the Navy's needs six times since its first rendezvous in March 1975.

USS Ranger (bottom) and SS Council Grove.

A rig was passed, but no fuel was transferred because Seattle already had a near full load.

Although the Yukon, operated by Ogden Marine, received an "'outstanding" rating, it was noted that the station-to-station phones failed and it also was recommended that a modification be made to pipelines at the after fueling stations.

The first at-anchor transfer was in September 1972 between the Montpelier Victory, operated by Victory Carriers, and the destroyer USS Trippe in the Arabian Gulf. Under the Charger Log VI concept, MSC-controlled tankers in the Indian Ocean provided at-anchor replenishment of Navy escort vessels.

Reporting on one consolidation, the master of the Montpelier Victory said, "After the initially cautious meeting of the naval and merchant-man minds was overcome, the operation was flawless. The co-operation between ships' crews was exemplary. The operation can only be classed as a smashing success.

"We could easily have taken a second naval ship on the port side and discharged to her at the same time. We could, under some conditions, make such fuel transfers at rates up to 15,000 barrels an hour with ease. I would say that when and where practical it is far superior to normal fueling at sea operations."

While the at-anchor type of replenishment is not a normal Navy practice, it offers advantages in an emergency situation when combatant ships are unable to be supplied while under way.

Five other opportune replenishments were conducted in 1972 in areas ranging from Rhode Island to the Arabian Gulf. MSC controlled tankers involved included the Ogden Yukon, Mission Buenaventura, Pioneer Valley, American Explorer and Yukon.

In 1973 there were 16 opportune replenishments of fleet ships by 13 MSC controlled tankers. In October and November the Spirit of Liberty consolidated fuel with three fleet ships in support of the Sixth Fleet during the Arab oil embargo.

The USS Pawcatuck, USS Truckee and USS Seattle were on the receiving end of seven consolidations by the Spirit of Liberty in the Eastern Mediterranean. The crew of the merchant ship received several commendatory messages from fleet ships for their performance.

The commander of Navy forces in Europe also praised the Spirit of Liberty crew noting that support by the tanker crew "materially enhanced readiness of the Sixth Fleet during a period when tensions were high in the Mid-East.

In 1974 there were 17 replenishments involving 10 MSC controlled tankers. In January and February the SS Trojan consolidated fuel with fleet ships three times in the Arabian Sea and once in the Gulf of Oman. One consolidation of the cargo was with another controlled tanker, the SS Exxon Seattle in the Gulf of Oman.

The two ships were at anchor side-by-side for 20 hours as the Trojan crew pumped 53,200 barrels of fuel to the Seattle. The Trojan was called upon twice more in March to transfer fuel to the USS Mispillion and USNS Taluga, MSC's first fleet oiler.

The crew of the Trojan was commended for their performance by Rear Adm. John D. Johnson, then commander of Task Force 73 and now the MSC commander. Admiral Johnson cited the Trojan crew for exemplary service to the Seventh Fleet Logistic Support Force.

In the last quarter of 1974 six additional underway replenishments involving MSC controlled tankers were scheduled. However, three were cancelled because of conflicts in ship schedules or bad weather.

In 1975, ten MSC chartered, privately owned ships made 16 consolidations with Navy fleet ships from Bermuda to the Gulf of Oman.

That year became notable for MSC when a Sealift class tanker made an initial consolidation. Sealift Antarctic transferred more than 76,000 barrels to the fleet oiler USS Kalamazoo in 17 hours in the Bay of Biscay, the largest at-sea transfer in the program to that time.

The following year 14 consolidations were made by 11 tankers. In October the SS San Antonio crew was lauded by the master of the USNS Navasota for "enviable professionalism and expertise we so seldom see in this day." The San Antonio crew pumped nearly 100,000 barrels of diesel and jet fuel to the Navasota.

The first half of 1977 was the busiest six months in the six-year history of Charger Log IV operations. Eleven controlled tankers made 18 consolidations of fleet ships at sites ranging from the Virginia Capes to the Indian Ocean.

The USNS Potomac was involved in a naval exercise, Solid Shield '77, in May off the Virginia Capes. The tanker transferred 20,000 barrels to the oiler USS Canisteo, frigate Thomas C. Hart and the destroyer Mahan using both alongside and astern delivery techniques.

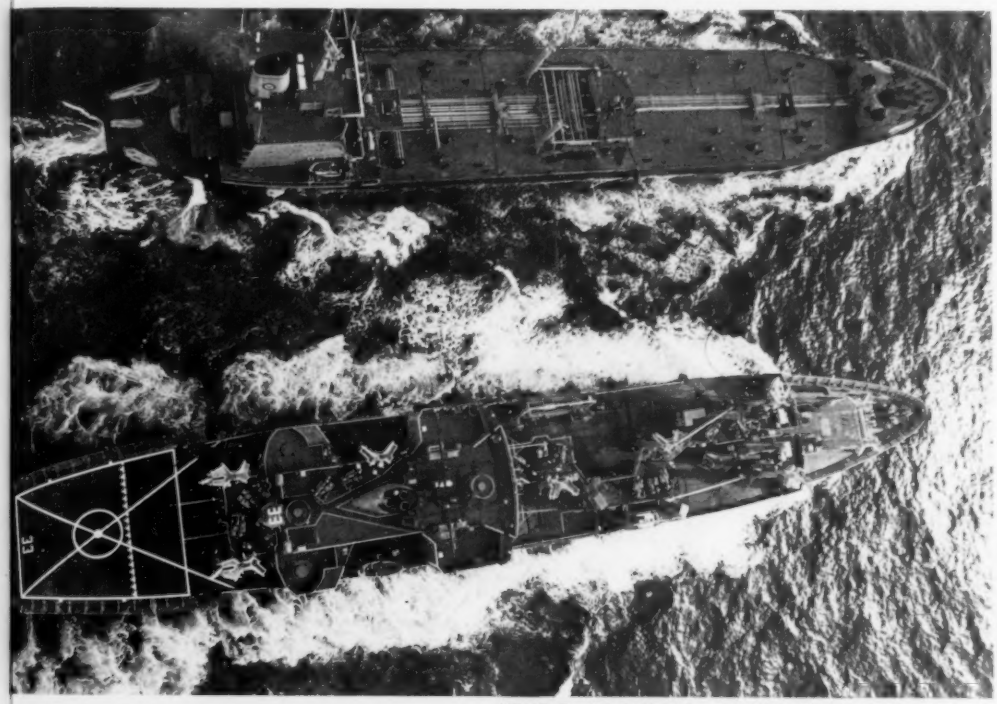
Because frigates do not carry fuel rigs to pass to tankers, the Potomac had been fitted with a special astern rig. Designed by the Naval Sea Systems Command, 14 astern refueling rigs have been built for MSC. The Potomac was the first to have

one installed and rigs are scheduled to be put on three Sealift class tankers by the end of 1977.

The Sixth Fleet oiler USNS Waccamaw was equipped with an astern refueling rig in June and the USNS Navasota, serving the Seventh Fleet in the Western Pacific, will have a rig installed this month.

The eight remaining rigs will be held in Prepositioned War Reserve Stock for emergency installation aboard tankers so that they can help meet fleet replenishment requirements.

Success of the program is a tribute to the training provided crews of MSC controlled ships and the attitude and skills of the crews who exert an extra effort to master underway replenishment tasks. The skills they acquire will be invaluable in event of an emergency situation where fleet underway replenishment requirements would surge dramatically. ⚓



Sealift Antarctic was praised by the Navy in May for "a smooth and efficient hookup" with Shasta off the Philippine coast.

USNS Sealift Antarctic and USS Shasta (bottom)

SS Erna Elizabeth (left) and USS Roosevelt

Operational tests aboard Erna Elizabeth helped pave the way for expansion of opportune replenishments of Navy ships by MSC controlled tankers, most of which are contractor operated and civilian manned.

Maritime Age of Aquarius

Courtesy General Dynamics

Aquarius, the first 125,000-cubic-meter tanker constructed in the United States, leaves the Quincy shipyard for sea trials.

By MMC Robert N. Mood and
YN2 Rosemarie L. Durante

On May 18 the liquefied natural gas (LNG) tanker Aquarius departed from the General Dynamics Corp. shipyard for sea trials, beginning a new era in global fuel transportation.

Dwindling supply of fossil fuels coupled with the rapidly escalating cost of petroleum have created an energy crisis and a requirement for ships capable of transporting a great volume of natural gas from overseas areas where supplies are abundant to high consumption areas.

Natural gas, a by-product of petroleum, often is wasted in many areas where there is no local market for it. But, gas is clean burning and easily distributed and therefore particularly desirable.

Transporting natural gas by means other than pipeline presents unique problems. At normal ambient temperatures gas has a volume 600 times greater than in a liquid state. Reducing the gas to a liquid by lowering its temperature to minus 259 degrees Fahrenheit (-162 degrees Celsius) makes storage problems manageable.

General Dynamics, Quincy (Mass.) Shipbuilding Division entered the world LNG tanker market in 1972 when contracts were signed to construct LNG ships of the spherical containment design. The keel of Aquarius (LNG 41), first of this type of ship to be built in the Western Hemisphere, was laid in December 1973. Work progressed rapidly and the launching ceremony was held in December 1975.

The spherical tanks were constructed at General Dynamics Charleston, S.C. facilities. Upon completion, each sphere was loaded on the transport barge Hercules for a four day, 900-mile journey to the shipyard in Quincy.

A 1,200-ton Goliath crane—largest in the Western Hemisphere—was erected in the Quincy yard to install prefabricated spherical tanks aboard ship. Construction techniques throughout the shipyard were automated and use of modular methods of construction greatly reduced the time required to assemble the ship. The shipyard now has the capacity to produce four LNG tankers per year.

The General Dynamics yard is located in a small inlet called Fore River and is separated from the open sea by a narrow drawbridge. This drawbridge caused a few anxious moments as the enormous tanker squeezed through its narrow gap on its way to sea trials. With a beam of 144 feet, Aquarius maneuvered through the 170-foot wide Fore River Bridge primarily under its own power.

Boston-based Naval Reservists from MSC Headquarters Atlantic Detachment 101 and MSC Office Boston/Eastern Mediterranean 101, toured the huge ship prior to its departure for England.

The 936-foot, 94,000-ton Aquarius is one of the most technologically advanced merchant ships ever built. The tanker has five 120-foot diameter spheres weighing 850 tons apiece. The inside area is so vast that the Christopher Columbus flagship Santa Maria would be able to float freely inside any of the tanks.

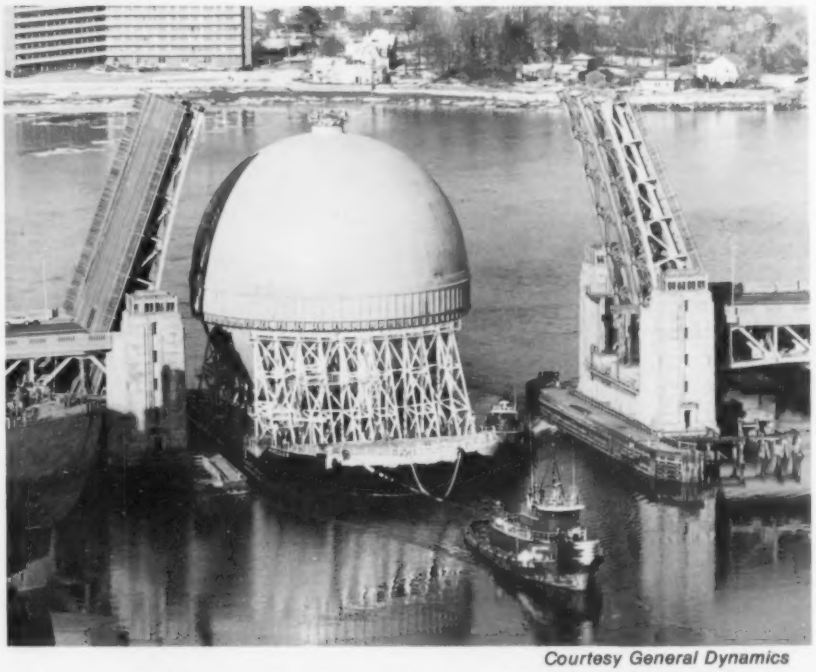
The tanks are covered with nine inches of polyurethane insulation to help maintain extremely low temperatures and prevent excess boil-off of gas. When fully loaded, the ship carries enough gas to serve an American city of 500,000 for one month. The ship is capable of loading or discharging its cargo of 125,000 cubic meters of gas in only 12 hours.

A dual fuel system is incorporated into the design of the vessel. For

Using the shipyard's Goliath crane, General Dynamics workers install a gas containment tank aboard the Aquarius.

Courtesy General Dynamics

The first of five 120-foot diameter, 850-ton spherical tanks for the Aquarius passes through the Fore River bridge enroute to the shipyard.



Courtesy General Dynamics

tight maneuvering when arriving or departing from port, the ship engineering plant uses oil to power its single propeller and bow thruster.

At sea the plant utilizes both oil and LNG boil-off from the cargo tanks. This boil-off occurs at a rate of less than one quarter of one per cent per day and is considered a supplementary fuel. The U.S. Coast Guard does not permit ships to be powered by gas alone at sea, or to use gas while in port.

Safety features built into the double hulled ship include the most modern navigation and electronics equipment, sensors, alarms, and a collision avoidance system. Fire protection systems incorporate automatic sprinklers and dry powder stations in addition to conventional equipment. An inert gas generated aboard ship is used to minimize explosion and fire dangers during loading and unloading of cargo.

The ship is operated by a crew of 30 and has accommodations for an additional five persons. Each crew member occupies a single stateroom which has a private toilet and shower. Other living features include a dining room, lounge, recreation rooms and a swimming pool.

Aquarius and her 11 anticipated sister ships will be registered as U.S.-flag vessels and manned by American crews. Aquarius and the next two ships will initially be operated on routes between Indonesia and Japan, transporting cargo at speeds of up to 20 knots.

As other ships go into service they will operate between Algeria and U.S. East and Gulf Coast ports.

Aquarius was designed in specific response to the world's growing energy needs. An innovative concept in the field of marine transportation of petroleum products, her introduction truly marks the dawning of the maritime age of Aquarius.

Admiral Johnson accepts the MSC command.

Secretary Hidalgo extends best wishes to Admirals Moore and Johnson.

Hail and Farewell

Photos by Russ Egnor
Fatimah Balbed
Louis Panarale

More than 350 persons gathered in the Washington Navy Yard's Leutze Park June 30 to witness the official swearing in of Rear Adm. John D. Johnson, Jr. as Military Sealift Command's 10th commander and to extend best wishes to retiring MSC commander Rear Adm. Sam H. Moore.

Main speaker at the ceremony was Assistant Secretary of the Navy for Manpower, Reserve Affairs and Logistics Edward Hidalgo.

Among other dignitaries were

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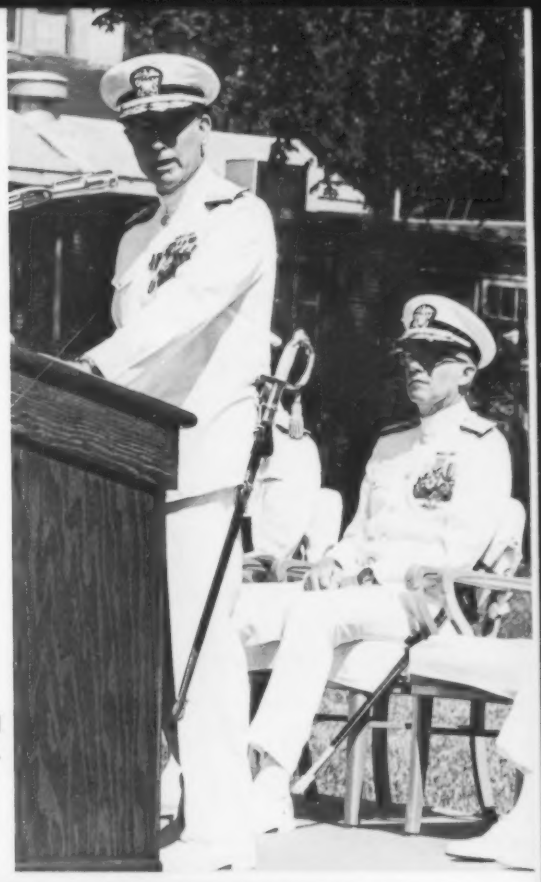
Admiral Johnson and his wife Patricia greet guests at the hail and farewell party at the Naval Medical Center Officers' Club.

Admiral Johnson enters the park to assume his new command. At the rear is Captain Richard Dietz.

Mrs. Moore assists in giving Admiral Moore the Distinguished Service Medal.

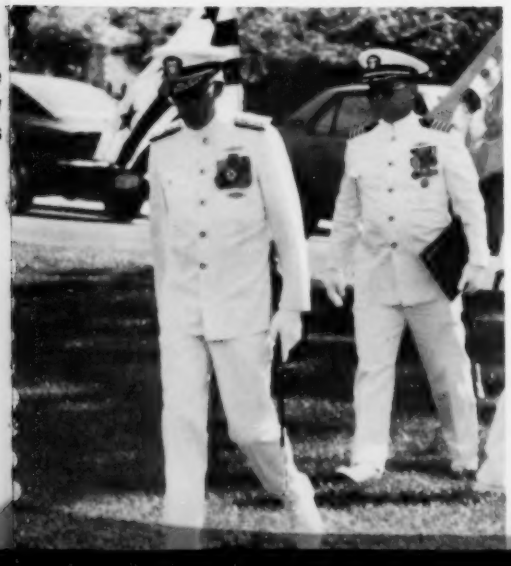


Admiral Moore bids farewell to friends and fellow officers.

Vice Chief of Naval Operations Admiral Harold E. Shear, who presented Admiral Moore with a Legion of Merit, and Washington Naval District Commandant Rear Adm. Ralph H. Carnahan. MSC fleet support and special projects director Capt. Richard Dietz was master of ceremonies.

Photos on these pages were taken during the ceremony, at the hail and farewell party the night before, and during the reception following the change of command ceremony.

Admiral Moore's flag is lowered.

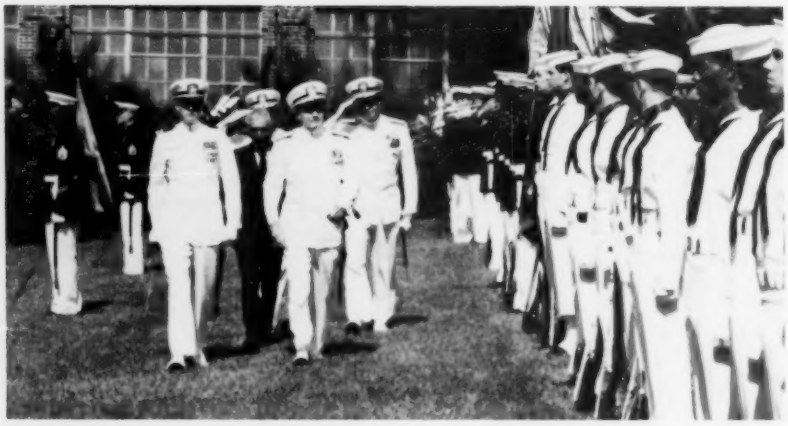


Admiral and Mrs. Johnson (left) and Admiral and Mrs. Moore greet guests in the reception line.

Retiring Admiral Moore receives a 13-gun salute.

The Navy band strikes up a chorus of Anchors Aweigh.

Mrs. Carnahan (left) is escorted by Lt. John Stevens and Mrs. Moore by Lt. Douglas Rice as they enter parade grounds.



The attending admirals and Hidalgo inspect the troops.

YNCS Earl Payne gives Admiral Moore a farewell handshake during ceremony.

LOGEX 77

Taxing Energy, Testing Knowledge

By YN1 Harry Costello

If the United States forces were mobilized for overseas deployment, would support organizations be ready to fulfill the logistical requirements of tactical units?

Should such a mobilization occur, are reservists ready to meet the challenge and work effectively with their active duty counterparts?

These and related questions will be answered when the results of LOGEX 77 (Logistical Exercise 1977) are analyzed.

LOGEX 77 was a joint military exercise involving reserve contingents from Navy, Army, Air Force and National Guard units from throughout the United States—and their active duty counterparts.

More than 2,000 military personnel, of whom 70 per cent were reservists, gathered at Fort Pickett, Va. for the two-week maneuver in

Maj. Gen. C. S. LeCraw (left), LOGEX 77 joint task force commander, briefs Capt. Edward Power (right), MSC reserve unit officer, and Lt. Cmdr. George Barford, division commanding officer.

Capt. William Muncy (center) director of the MSC plans and programs office, discusses the exercise with Capt. Power and Cmdr. William Bullock, chief controller for the MSC portion of LOGEX.

June. They put in 14-hour work days and took off only one day.

Military Sealift Command was represented by a reserve contingent of 36 officers and enlisted personnel from 19 areas of the United States.

The MSC reservists worked effectively with unified reserve and active duty units from other military services which train all year for this exercise.

Confronted with a continuous stream of problems that an MSC unit would encounter in a real emergency, the reservists used radio and telephone communications to make necessary arrangements for ships, services and varied types of support.

The areas of MSC's simulated operations were the South Korean ports of Pohang, Pusan, Chin Hae and Musan. Part of the exercise called for the MSC unit to contract for divers, barges, tugs, supplies and food through Korean officials.

Problems for MSC included tanker groundings, salvage and docking operations and receiving bodies of military personnel killed in action.

The annual U.S. Army sponsored Logistics Command Post exercise involved a simulated invasion of a U.S. ally and the logistically-oriented response of American military units following the decision of U.S. leaders to assist the ally.

Military Sealift Command offices for the exercise were open and ready for business in two days and controlled 88 merchant vessels during the simulated exercise resupply effort.

The exercise programists challenged participating units with a lengthy list of problems to overcome in providing logistics support to U.S. and Allied forces, including those related to delivery of supplies and equipment to foreign ports. Emphasis was on interservice coordination and cooperation throughout the combat support operation.

During the exercise, MSC staff members handled the ships through four diverse ports and coped with many problems related to massive ship and cargo movement.

Exercise objectives were:

—To train participants in combat support and combat service support command and staff problems, emphasizing the interdependence of the military services operating as an Armed Forces team.

—To emphasize the relationship between combat and support organizations.

—To stress the importance of command and staff procedures and techniques in the application of logistic support fundamentals.

—To emphasize current logistical support doctrines and to introduce new concepts.

Capt. Edward Power, commanding officer of the Military Sealift Command unit participating in the exercise, said that from the Navy's standpoint it was the "most realistic and comprehensive two week training duty I have ever experienced.

"The exercise simulated situations that would normally take six months to encounter and condensed

Master Chief Yeoman Cecil Godfrey (left) and Richard Dreisonstok joined the Navy in the early 1940s. They combined their years of experience to handle LOGEX administrative tasks.

a 60-day mobilization plan into two weeks," he added. Power is manager of business development for General Foods Corp.

A reservist from New Canaan, Conn., he was assisted by Cmdr. Vito Giordano, East Chester, N.Y., chief staff officer; Cmdr. William Bullock, Rockville, Md., exercise controller; Cmdr. C. R. Crawford, Dallas, Texas, and Lt. Cmdr. George Barford, Tampa, Fla., division commanders.

In a review of the exercise with other senior military officials, Power said the role played by MSC "taxed our energy and tested our professional knowledge. But most importantly, we learned," he said.

"We had to react fast, and we did so successfully because of our sealift backgrounds," Power added.

Lt. Cmdr. Don Black, division compensation manager for TRW Defense and Space Systems Group in Redundo Beach, Calif., participated in his second LOGEX. Serving as an operations officer in a local port during the exercise, he called the exercise "very meaningful training."

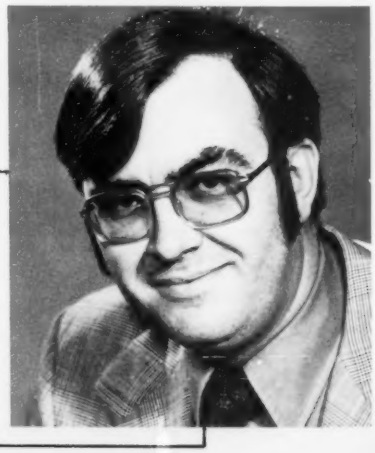
Paul Kempf, distribution manager for J.C. Penny, New York, is a reserve lieutenant commander who participated in his third LOGEX. "This is where it's at," he noted, referring to the training gained in terms of mobilization and interservice relationships.

Looking at MSC's participation in the exercise, Kempf said he feels MSC's Naval Reserve contingent "gained a hell of a lot better experience playing a total game" rather than sticking to specific issues and assignments as some units did.

Senior Chief Boatswain Mate James E. Duke, a district fire chief from Tampa, Fla., who directed support services for the MSC unit, considered his experience at LOGEX highly rewarding.

"It was as good an exercise as one could experience without being confronted with the real thing." Duke said.

Heading up administrative activities for the MSC command was Master Chief Yeoman Cecil R. Godfrey, a reservist from Decatur, Ga. With 25 years of Naval Reserve service, Godfrey said the LOGEX exercise offered naval reservists an opportunity to find out what Military Sealift Command is all about. ⚓



YN1 Harry Costello is a Navy Reservist with Military Transportation Unit, Atlantic 208. He is a business reporter for the Tampa (Fla.) Times. Costello began his newspaper career with the Scranton (Pa.) Tribune. After four years in the Navy and two years with the New London Day, he joined the Times in 1973 as a feature writer. Costello has a B.A. degree in Political Science from the University of South Florida in Tampa.

Taluga Hits 1,000

Photos by PH2 D. W. Salle

What does it take to record 1,000 replenishments at sea? A lot of work, a great deal of know-how, and most important of all a ship's crew that understands both the importance of their mission and how to take advantage of the equipment and systems they have at their disposal. All of those "requirements" are fulfilled by those who now serve or have been assigned aboard USNS Taluga.

The Taluga crew serviced their 1,000th customer in May when they refueled the carrier USS Kitty Hawk off the coast of southern California, an event that did not escape the attention of Kitty Hawk commanding officer Capt. Ned Hogan.

Knowing it was coming, the Kitty Hawk baker baked a cake to commemorate the occasion and it was decorated and delivered to the Taluga by replenishment line with the congratulations of Captain Hogan and the Kitty Hawk crew.

With the 1,000th Taluga replenishment in the MSC book of records, Capt. Richard Haugh and the Taluga crew gathered in the mess for a piece of cake—an apt symbol for what has come to be a routine aboard MSC ships, highly successful refueling of fleet vessels.

Cake cutting honors were assigned to a member of the original Taluga crew, Able Seaman Jerry Kroutchic, a maintenance specialist.

Formerly military manned, Taluga was transferred to MSC for Civil Service manning and operation in May 1972. It was the first MSC fleet support oiler. In initial operations Taluga and an MSC chartered commercial ship, the SS Erna Elizabeth, refueled Navy and NATO ships as the Navy sought to learn more about the capability of civilian manned ships to meet support requirements of the combatant Navy fleet.

In November 1972, Taluga was deployed to the western Pacific, manned by a specially selected and highly trained crew of 105 Civil Service mariners and a 16-man military detachment which handled communications and liaison with fleet units.

Advantages anticipated were soon proven in actual operations. The smaller civilian crew, possible because the ship carried no weapons and did not have a command information center, was highly productive since all were experienced professionals able to perform a variety of shipboard tasks. Overall cost for ship operation was approximately half that for a military manned oiler, $3.6 million as compared to $6.6 million per year.

The operating concept for a civilian manned oiler helps its crew maintain high productivity since the ship has no stateside home and remains deployed while crewmen are replaced after a designated tour.

The June 1973 Service Group

Ensign M. L. Walton of the Kitty Hawk prepares to send cake to Taluga to commemorate the MSC oiler's 1,000th underway replenishment.

Three readiness report ranked Taluga No. 2 among six ships of comparable class in the service group. Taluga's overall performance score for the following year was 98—of a possible 100—and the ship was rated No. 1 among Seventh Fleet oilers in readiness performance grades.

Taluga's initial success—again the result of teamwork, skill and dedication by the combined Civil Service and military crew—led to the subsequent transfer of additional Navy oilers to MSC for operation in support of the fleet. The command now operates seven oilers, and the blue and gold markings and the MSC insignia displayed on the stacks have become a familiar sight to Atlantic and Pacific fleet units.

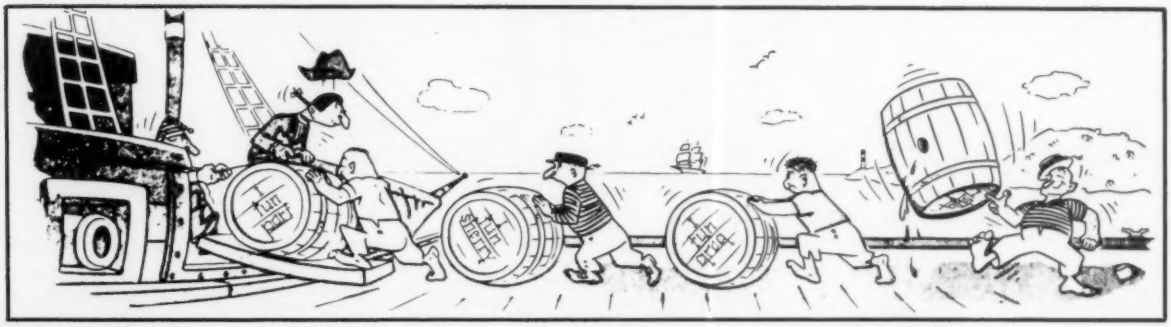
Joining the Taluga have been USNS Pawcatuck, Navasota, Marias, Mispillion, Passumpsic and Waccamaw. The seven oilers operating in support of Pacific and Atlantic fleets performed 1,256 replenishments at sea during 1976.

An eighth oiler, USNS Mississinewa, was transferred to the command Nov. 15, 1976 and now is being readied for fleet support operations. ⚓

Able Seaman Jerry Kroutchic cuts cake as Capt. Richard Haugh (behind cake) and other Taluga crew members look on.

Kitty Hawk maneuvers alongside Taluga in preparation for the historic underway replenishment.

Now Let's See, A Gross Ton is. . .er. . .ah. . .ummm



Gertrude Stein claimed that a "rose is a rose, is a rose" but it does not necessarily follow that a ton is a ton, is a ton.

The word means different things to different people, in different situations, as illustrated by the disappointed guy who described his blind date as "weighing a ton." And what is the precise impact of a "ton of bricks?" "Two Ton Tony" Galento weighed only about 250 pounds when he fought Joe Louis, but no sportswriter referred to him as Eighth of a Ton Tony."

Semanticists tell us that the term "ton" is derived from the Anglo Saxon word "tun" which described a large cask holding wine or other spirits. That could be how Tony Galento earned his nickname. It probably referred to his "tunnage."

"Tunnage" was an English adaptation of "tun" and referred to the number of casks of wine which could be put aboard a ship. A ship with a "tunnage" of 2,000 was able to carry 2,000 casks, or "tuns," of wine. It is doubtful that "Two Ton" Tony and his entire entourage could have polished off two "tuns" in a single evening.

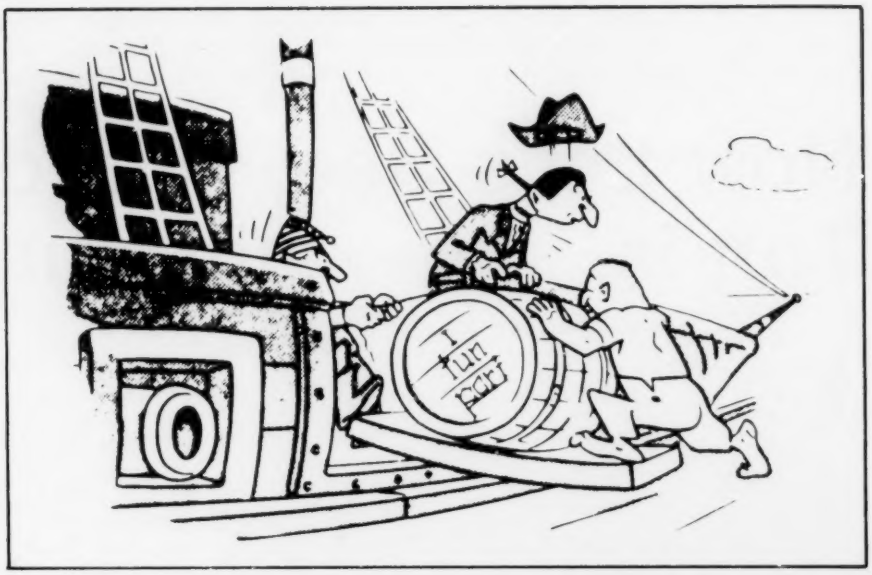
The British Parliament eventually fixed the capacity of a "tun" as 252 gallons—which made it easier to levy taxes and import duties. And, since a ton of the liquid grape weighed 2,240 pounds, that became a standard unit of measure—one now known as a "long ton." Like the five-quart imperial gallon it is larger than the 2,000 pound ton Americans generally use.

However, tonnage terminology is even more confusing than it appears to be to those primarily concerned with moving household goods, ordering a load of coal or shipping manufactured products.

Not satisfied with the confusion they helped create, mariners have continued to assign new meanings to measures of weight, even to the point of using "ton" to describe a spatial area. A measurement ton, commonly used in maritime circles, is equivalent to 40 cubic feet. Thus, a military jeep taking up 100 cubic feet aboard a ship is described as 2 ½ measurement tons. It's a lot easier to determine that statistic than it is to weigh all cargo being loaded aboard. And since the spatial capacity of a ship is easily computed, describing cargo in measurement tons facilitates preparation of loading plans. One only has to measure one jeep, one container, or any of the standard items carried by ship to determine its tonnage—measurement tonnage that is.

It would be very easy to think in terms of measurement tons except for the fact that not all equate to 40 cubic feet. Some use 100 cubic feet as a base. Others describe a measurement ton as 35 cubic feet—all of which may help explain why cargo documentation and preparation of shipping manifests sometimes produce arithmetical puzzles for the shipper rather than clear listings of cargo loaded or delivered.

There are, to further confuse the issue, many other meanings of the word " ton." While gray cats may

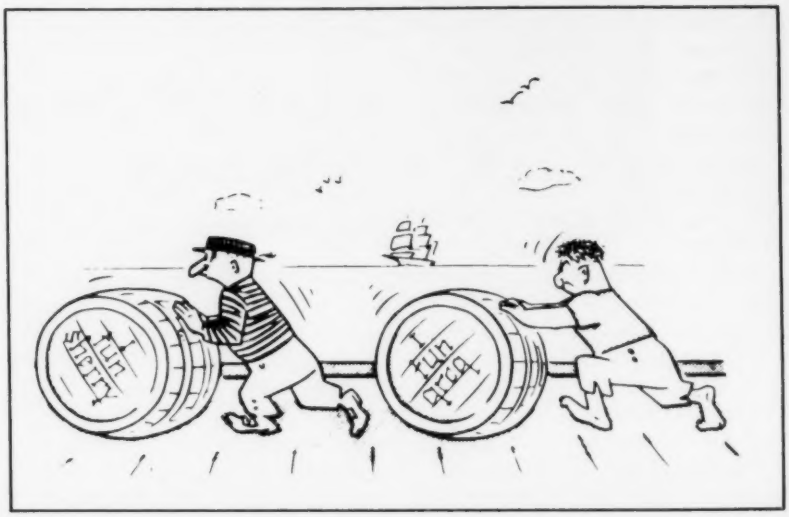


all look alike at night, the differences in meaning of like terms are substantial. One might ask why something has not been done to help clarify shipping terminology. The answer, as is generally the case, is that all of the present systems of measurement have an appeal for special interest groups.

Statistics may not lie, as the old saying goes, but statisticians do. So do propagandists, advertisers and everyone else trying to influence an opinion or support a point of view. During World War II German reports of allied shipping sunk by their U Boats were expressed in deadweight tons—to make the totals look more impressive. The Allies, in the interest of accurate reporting, used gross register tonnage. The fact that this practice lowered the shipping loss totals was, of course, purely coincidental.

Just as man can manipulate statistics, he can confuse and confound by his use of the English language. It is not enough that we have to interpret the meaning of the word symbols both in terms of our own experience and the manner in which they are delivered, by the intonation of the speaker, by the vocal emphasis he adds, and even his facial expression or gestures—his body language, if you will. Words themselves have different meanings. That which we think is said may not be what is meant.

"Bale," for example, can refer to a sick man, great evil, woe or sorrow. It also is a large wrapped package to be stored or shipped. When used with reference to spatial measurement, generally expressed as "cubic bale," it refers to the capacity of a ship's hold, to the inside of the cargo battens and the underside of its beams.



Should be easy to measure the cubic bale of a ship, right? As the songwriter told his wife when she claimed the lipstick on his collar meant he had been unfaithful to her, "It Ain't Necessarily So." Grain, for example, slithers into cracks and crevices, in and around protruding objects, and can be packed into every cranny and corner of a ship's hold. Thus, the grain cubic bale of a ship would be larger than the bale for the same ship carrying pallets. Or, to be more accurate, the *usable* cubic bale would be larger, generally as much as 10 per cent.

Ton-trivia, you say? Not if you are an officer aboard a ship and your pay scale is geared to the ship's tonnage. Not if Coast Guard certificates which certify a ship's tonnage are necessary for a vessel to go through the Suez and Panama Canals. Not if various laws and regulations apply to some ships, but not to others.

The U.S. Coast Guard provides documents for nearly 105,000 vessels, half of them pleasure craft. Their standard unit of measure is 100 cubic feet and it is used in assigning gross or net tonnage figures.

However, the Coast Guard is not the sole source of tonnage figures. Architects, builders, owners, operators and other shipping authorities also designate ship

capacities. Their designations have a practical purpose since transportation rates may be partially based upon them, the resulting draft is used to indicate whether a ship can or cannot operate in certain waters, and utilization of a ship often depends upon capacity, draft, etc., ad infinitum.

Many people involved in maritime matters take it for granted that they know what the various terms mean. Asked for a ship's deadweight tonnage, they consult a file or chart and give you the number. But, ask them what the term really means, and they are often unable to define it. They are apt to mumble, stumble, and then take the offensive by claiming, "Everyone knows that!"

Don't accept that premise? Then try this simple test. Jot down your own definitions of the following terms without looking at the answers that follow. Then check with the definitions printed below.

a. Canal tonnage, b. deadweight tonnage, c. gross tonnage, d. displacement tonnage, e. freight or measurement ton, f. long ton, g. short ton, h. metric ton, i. net tonnage, j. power tonnage, k. register tonnage, l. underdeck tonnage. ⚓

(a) Derived from measurement formulas prescribed by the respective canal authorities for assessment of tolls. (b) Total lifting capacity of a vessel, expressed in long tons. (c) Cubic feet within a ship, excluding wheelhouse, galley and other non-usable spaces, and expressed in units of 100 cubic feet each. (d) Weight in long tons for every 35 cubic feet of water displaced by the submerged portion of the vessel. (e) Cargo space usually measured at 40 cubic feet to the ton. (f) 2,240 pounds, avoirdupois. (g) 2,000 pounds, avoirdupois. (h) 2,204.6 pounds, avoirdupois (1,000 kilograms). (i) Approximate cargo and passenger capacity of a vessel measured in 100-cubic-foot measurement tons. (j) Gross tonnage of a ship added to its horsepower and used to establish rate of pay for ship officers. (k) 100 cubic feet of a ship's interior space. (l) Measurement tons of 100 cubic feet equal to the space between the double bottom in the hold and the under-surface of the tonnage deck.

Missed two or more? Back to the manuals.

The big "E" on the pennant stands for "excellence". Officers and crew of Military Sealift Command, Atlantic's special projects tracking ship USNS Vanguard proudly display the pennant which signifies the ship has won a 1977 MSC Smart Ship award. The award is given annually to ships that have displayed the best economy, efficiency, readiness and reliability of operation over the past year. At MSC, Pacific, Smart Ship awards went to the oiler USNS Passumpsic and the ballistic missile resupply ship USNS Furman. Among those (in dark uniforms) holding the pennant are Vanguard's master, Capt. Robert Daugherty (left) and Atlantic Commander Capt. Herman E. Fritzke. Photo by PHI John Francavillo, MSC, Atlantic.

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